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--ABSTRACT OF THE DISCLOSURE

Q15  
An optical device including a laser with a laser cavity having a gain curve with a maximum at a wavelength  $\lambda_{\max}$ ; and an optical carrier coupled to the cavity. The optical carrier includes a grating that defines a reflection peak coefficient at a wavelength  $\lambda$  that is less than the wavelength  $\lambda_{\max}$  by at least 10 nanometers at ambient temperature.--

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